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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,386	11/18/2003	Nilanjan Mukherjee	2003P54686 US	4414
45113	7590	11/02/2010	EXAMINER	
Siemens Corporation			DAY, HERNG DER	
Intellectual Property Department				
170 Wood Avenue South			ART UNIT	PAPER NUMBER
Iselin, NJ 08830			2128	
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		11/02/2010	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Advisory Action Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/716,386	<b>Applicant(s)</b> MUKHERJEE, NILANJAN
	<b>Examiner</b> HERNG-DER DAY	<b>Art Unit</b> 2128

**—The MAILING DATE of this communication appears on the cover sheet with the correspondence address —**

THE REPLY FILED 15 October 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a)  The period for reply expires \_\_\_\_ months from the mailing date of the final rejection.
- b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2.  The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because

- (a)  They raise new issues that would require further consideration and/or search (see NOTE below);
- (b)  They raise the issue of new matter (see NOTE below);
- (c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5.  Applicant's reply has overcome the following rejection(s): See Continuation Sheet.

6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1-4, 6-9 and 11-14

Claim(s) withdrawn from consideration: \_\_\_\_\_

**AFFIDAVIT OR OTHER EVIDENCE**

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fail to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.

12.  Note the attached *Information Disclosure Statement(s)*. (PTO/SB/08) Paper No(s). \_\_\_\_\_

13.  Other: \_\_\_\_\_

/Kamini S Shah/  
Supervisory Patent Examiner, Art Unit 2128

Continuation of 3. NOTE:

1. The proposed Amendments to independent claims 1, 6, and 11 replaced the limitation "model having a plurality of nodes" with "model having a plurality of interconnected nodes forming a mesh", which changed the scope of independent claims 1, 6, and 11.
2. Changing scope raises new issues and requires further consideration and/or search.

Continuation of 5. Applicant's reply has overcome the following rejection(s):

The proposed Amendments to independent claims 1, 6, and 11, after entered, will overcome the rejections of 112, second paragraph, and 101 in Office Action dated 8/18/10.

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments are not persuasive.

1. Applicant has argued in page 13, paragraph 1, "Blacker doesn't receive a selection of a node, and doesn't determine valency for a selected node."

Applicant's argument is not persuasive. Blacker discloses in column 12, lines 12-42, "essentially after every modification to the mesh, a smoothing step 130 is used to restore and maintain element size, perpendicularly, and overall paving boundary and mesh smoothness. ... The paving boundary smooth step 131 is a modified isoparametric smooth that is limited to nodes on the current paving boundary that are not part of the permanent boundary. ... Defining  $V_i$  as a vector from the origin to a node  $N_i$  and assuming that  $N_i$  is attached to  $n$  elements,  $V_{mj}$ ,  $V_{mk}$  and  $V_{ml}$  are vectors from the origin to nodes  $N_j$ ,  $N_k$  and  $N_l$  of the  $m$ th element, respectively." In other words, Blacker discloses in the smooth step 131  $N_i$  the selected node which is not part of the permanent boundary and  $n$  elements attached to  $N_i$  is the determined valency for the selected node  $N_i$ . Applicant's independent claims have not specified how the valency for a selected node is determined. Therefore, Blacker's defining  $V_i$  as a vector from the origin to "a node  $N_i$  and assuming that  $N_i$  is attached to  $n$  elements" anticipates the argued limitation.

2. Applicant has argued in page 13, paragraph 2, "While the relevant passages describe rows of quadrilateral elements, nothing in Blacker teaches or suggests determining an element connectivity pattern of the selected node, as claims."

Applicant's argument is not persuasive. Blacker discloses in Abstract, "The automated quadrilateral surface discretization method and apparatus automatically generates a mesh of all quadrilateral elements which is particularly useful in finite element analysis." In other words, the element connectivity pattern has been predetermined as a quad-only mesh by mesh generation. Applicant's independent claims have not specified how the element connectivity pattern is determined. Therefore, Blacker's automatically generates "a mesh of all quadrilateral elements" anticipates the argued limitation.

3. Applicant has argued in page 13, the last paragraph, through page 14, paragraph 1, "As Blacker does not teach or suggest determining nodal valency or element connectivity patterns, any smoothing performed by Blacker is not done according to the nodal valency and the element connectivity pattern, as claimed."

Applicant's argument is not persuasive. Blacker does disclose determining nodal valency and element connectivity patterns as detailed in the response to arguments 1 and 2 above. Furthermore, Blacker discloses in column 12, lines 30-46, "The paving boundary smooth step 131 is a modified isoparametric smooth that is limited to nodes on the current paving boundary that are not part of the permanent boundary. ... Defining  $V_i$  as a vector from the origin to a node  $N_i$  and assuming that  $N_i$  is attached to  $n$  elements,  $V_{mj}$ ,  $V_{mk}$  and  $V_{ml}$  are vectors from the origin to nodes  $N_j$ ,  $N_k$  and  $N_l$  of the  $m$ th element, respectively. The nodes must be in a clockwise or counterclockwise order around the element. A new vector  $V'_i$  from the origin to the proposed new location of the node  $N_i$  is given by the equation: equation [19]. In other words, Blacker discloses the proposed new location of the node  $N_i$  (i.e., after smoothing) is given from the equation [19] and equation [19] is based on nodal valency (i.e.,  $n$ ) and element connectivity pattern (i.e.,  $V_{mj}$ ,  $V_{mk}$  and  $V_{ml}$  are vectors from the origin to nodes  $N_j$ ,  $N_k$  and  $N_l$  of the  $m$ th quadrilateral element) which anticipates the argued limitation.